09680471

FILE 'CAPLUS' ENTERED AT 16:59:40 ON 28 JUL 2002
L1 0 S (SPOT (3A) SYNTHES?) AND TLC
L2 134 S (SPOT (3A) SYNTHES?)
L3 8 S L2 AND SEPARAT?
L4 1 S L2 AND (TLC OR CHROMATOGR?)
L5 22012 S (SYNTHES? OR REACTION?) (6A) (SPOT OR PAPER OR FILTER OR CELL
L6 74 S L5 AND TLC
L7 5751 S (SYNTHES? OR REACTION?) (3A) (SPOT OR PAPER OR FILTER OR CELL
L8 29 S L7 AND TLC

=> d l8 ti 1-29

L8 ANSWER 1 OF 29 CAPLUS COPYRIGHT 2002 ACS
TI Study on the pathogenic toxins of Sclerotinia homoeocarpa, the causal agent of dollar spot disease in bent-grass

L8 ANSWER 2 OF 29 CAPLUS COPYRIGHT 2002 ACS
TI Synthesis and characterization of dicationic zeolites for use as stationary phases in thin-layer chromatography

L8 ANSWER 3 OF 29 CAPLUS COPYRIGHT 2002 ACS
TI Enzymic synthesis of 14C-glycosphingolipids by reverse hydrolysis reaction of sphingolipid ceramide N-deacylase: detection of endoglycoceramidase activity in a seaflower

L8 ANSWER 4 OF 29 CAPLUS COPYRIGHT 2002 ACS
TI Detection of phosphatidylinositol-4-phosphate 5-kinase activity using thin-layer chromatography

L8 ANSWER 5 OF 29 CAPLUS COPYRIGHT 2002 ACS
TI Possibility of formation of colored spots of inorganic ions with organic reagents on thin layers of cellulose and silica gel. II

L8 ANSWER 6 OF 29 CAPLUS COPYRIGHT 2002 ACS
TI Estrogen-Nucleic Acid Adducts: Reaction of 3,4-Estrone o-Quinone with Nucleic Acid Bases

L8 ANSWER 7 OF 29 CAPLUS COPYRIGHT 2002 ACS
TI Detection of trace quantities of amines with the use of enzymic reactions and chromatographic techniques

L8 ANSWER 8 OF 29 CAPLUS COPYRIGHT 2002 ACS
TI DNA adduct formation by hormonal steroids in vitro

L8 ANSWER 9 OF 29 CAPLUS COPYRIGHT 2002 ACS
TI Benzenediazonium Ion Derived from Sudan I Forms an 8-(Phenylazo)guanine Adduct in DNA

L8 ANSWER 10 OF 29 CAPLUS COPYRIGHT 2002 ACS
TI p-.alpha.-Cumylphenol derivatives. VI. Preparation and Claisen rearrangement of some allyl ethers of p-.alpha.-cumylphenol

L8 ANSWER 11 OF 29 CAPLUS COPYRIGHT 2002 ACS
TI p-.alpha.-Cumylphenol derivatives. IV. Formation of bisaryl-azomethine derivatives from o-formyl-p-.alpha.-cumylphenol and saturated diamines

L8 ANSWER 12 OF 29 CAPLUS COPYRIGHT 2002 ACS
TI A novel method for sequencing protein or polypeptide by TLC of amino acids released by modified Edman degradation

L8 ANSWER 13 OF 29 CAPLUS COPYRIGHT 2002 ACS
TI Fungal metabolites as growth inhibitors of sugarcane and the mechanism of phytotoxicity

L8 ANSWER 14 OF 29 CAPLUS COPYRIGHT 2002 ACS
TI Mutagen formed from tryptophan reacted with sodium nitrite in acidic solution

L8 ANSWER 15 OF 29 CAPLUS COPYRIGHT 2002 ACS
TI Identification of some toxicologically important substances in biological fluids

L8 ANSWER 16 OF 29 CAPLUS COPYRIGHT 2002 ACS
TI Mutagens formed from butylated hydroxyanisole treated with nitrite under acidic conditions

L8 ANSWER 17 OF 29 CAPLUS COPYRIGHT 2002 ACS
TI Isolation of the red product of the theophyllidine reaction

L8 ANSWER 18 OF 29 CAPLUS COPYRIGHT 2002 ACS
TI Detection of citrazinic acid by paper and thin-layer chromatography

L8 ANSWER 19 OF 29 CAPLUS COPYRIGHT 2002 ACS
TI Chromatography of bis-quaternary amino steroids. I. Separation on silica by thin-layer and high-performance liquid chromatography

L8 ANSWER 20 OF 29 CAPLUS COPYRIGHT 2002 ACS
TI Dynamics of 10B-paraboromophenylalanine accumulation, metabolism and excretion. Amino acid autoanalytical and thin layer chromatographic studies

L8 ANSWER 21 OF 29 CAPLUS COPYRIGHT 2002 ACS
TI Qualitative analysis of 6-methoxytetrahydronaphthalene

L8 ANSWER 22 OF 29 CAPLUS COPYRIGHT 2002 ACS
TI Improved analysis for urinary polyamines by use of high-voltage electrophoresis on paper

L8 ANSWER 23 OF 29 CAPLUS COPYRIGHT 2002 ACS
TI Thin layer chromatography combined with color spot test reactions for preliminary identification of papaveraceous alkaloids

L8 ANSWER 24 OF 29 CAPLUS COPYRIGHT 2002 ACS
TI Detection of bile salts with Komarowsky's reagent and group specific dehydrogenases

L8 ANSWER 25 OF 29 CAPLUS COPYRIGHT 2002 ACS
TI Estimation of methylmalonic acid in urine by thin layer chromatography

L8 ANSWER 26 OF 29 CAPLUS COPYRIGHT 2002 ACS
TI Nigerian medicinal plants. I. TLC [thin-layer chromatographic] separation and quantitative evaluation of Alstonia boonei alkaloids

L8 ANSWER 27 OF 29 CAPLUS COPYRIGHT 2002 ACS
TI Thin-layer and paper chromatography of reaction mixtures and products of the condensation of phenol with formaldehyde

L8 ANSWER 28 OF 29 CAPLUS COPYRIGHT 2002 ACS

TI New applications of nitrite photolysis to estrone by photochemical route

L8 ANSWER 29 OF 29 CAPLUS COPYRIGHT 2002 ACS

TI Synthesis of phosphopeptides. V. Further dipeptides, tripeptides, and O-phosphorylated derivatives of L-serine

=> d l8 ibib abs 4, 5

L8 ANSWER 4 OF 29 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1998:374661 CAPLUS

DOCUMENT NUMBER: 129:158245

TITLE: "Detection of phosphatidylinositol-4-phosphate 5-kinase activity using thin-layer chromatography"

AUTHOR(S): Parker, Gregory J.; Loijens, Joost C.; Anderson, Richard A.

CORPORATE SOURCE: Department of Pharmacology, University of Wisconsin at Madison, WI, USA

SOURCE: Methods in Molecular Biology (Totowa, New Jersey) (1998), 105(Phospholipid Signaling Protocols), 127-139 CODEN: MMBIED; ISSN: 1064-3745

PUBLISHER: Humana Press Inc.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB An assay for detecting phosphatidylinositol-4-phosphate 5-kinase by TLC is described. The TLC spots produced by the reaction products phosphatidylinositol 4,5-bisphosphate and lyso phosphatidylinositol 4,5-bisphosphate are visualized by autoradiog. and quantified by scintillation counting.

L8 ANSWER 5 OF 29 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1997:372225 CAPLUS

DOCUMENT NUMBER: 127:130134

TITLE: "Possibility of formation of colored spots of inorganic ions with organic reagents on thin layers of cellulose and silica gel. II"

AUTHOR(S): *Soljic, Z.; Hrestak, Z.; Eskinja, I.*

CORPORATE SOURCE: Dep. Analytical Chem., Fac. Chem. Eng. Technol., Univ. Zagreb, Zagreb, 10000, Croatia

SOURCE: **Kemija u Industriji (1997), 46(5), 195-202**
CODEN: KJUIAR; ISSN: 0022-9830

PUBLISHER: Hrvatsko Drustvo Kemijskih Inzenjera i Tehnologa

DOCUMENT TYPE: Journal

LANGUAGE: Croatian

AB The reactions of the following inorg. ions: Au3+, Ce4+, Ga3+, Ga3+, Ge(IV), Pt4+, Rb3+, Se(IV), Si(IV), Th4+, Tl+, UO22+, V5+ and W(VI) with numerous org. reagents on microcryst. cellulose and silica gel thin layers were studied. Exptl.: Thin layers were prepd. from water suspensions of sorbents cellulose: water = 1:3 and silica gel: water = 1:2,5; Layers were dried at room temp., over night; Water solns. of salts (chlorides and nitrates or sulfates), concns. of ions 1-5 mg/mL, were used as samples; Reagents were dissolved in org. solvents, most frequently in ethanol,

usually 0,1 g reagent in 100 mL solvent. Procedure: One drop of cation soln. was spotted on cellulose layer and one on silica gel layer, spots were dried and both sprayed with the same reagent soln., and exposed to NH3 vapor (and sometimes to UV light). Results of studies are presented in Tables 1 and 2. Reagents which don't give colored spots at all: on cellulose - malachite green, 1,5-diphenylcarbazone, cupferrone, chromitropic acid, mercaptobenzothiazole, dimethylglyoxime, titan yellow, and sulfonazo III; on silica gel - alizarin yellow, 2- mercaptobenzothiazole, dimethylglyoxime, quinalizarin, sulfonazo III, titan yellow, calcein without NH3, rubeanic acid, 1,5-diphenylcarbazone diethyldithiocarbamate, cupferrone, chromotropic acid and salicyladoxine. Some reagents react specifically only with one, two or three ions on both sorbents. The results showed different behavior of majority studied reagents on cellulose and on silica gel thin layers; the spot colors and the possibility of colored spots formation are very different on these two sorbents. The differences are esp. dependent on acidity (basicity) of medium. It is included from results obtained that sorbent influences the reaction between ion and org. reagent; with electron forces of its particles the sorbent acts to complex (compd.) and products such conditions for the absorption of particular wavelengths of electromagnetic spectrum, and thus it takes part in formation of the spot color. The results obtained in this study are applicable in qual. and quant. analyses of mentioned ions, in the 1st place in planar chromatog., and also in spot test reactions, spectrophotometry etc.

L8 ANSWER 12 OF 29 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1991:531400 CAPLUS
DOCUMENT NUMBER: 115:131400
TITLE: "A novel method for sequencing protein or polypeptide by TLC of amino acids released by modified Edman degradation"
INVENTOR(S): *Yoshioka, Masanori*
PATENT ASSIGNEE(S): Ise Chemical Industries Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 03099264	A2	19910424	JP 1989-234724	19890912

AB The title method comprises: (1) spotting N samples on a porous glass TLC plate; (2) hydrolyzing the Nth sample spot by the Edman reaction to degrade 1 peptide from the sample, hydrolyzing the unreacted (N-1)th sample and the reacted Nth sample by the same reaction to degrade 1 peptide from each sample, and repeating the degrdn. until sufficient samples are degraded; (3) dansylating and sepg. all the

dansylated peptides by TLC on a glass plate; and (4) detg. the sequences of the sample protein or polypeptide. In Edman degrdn., 2-mercaptoethanol, Ph isothiocyanate and trifluoroacetic acid are added to the spotted samples. Sequencing of lysozyme is given as an example.

L8 ANSWER 23 OF 29 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1979:478939 CAPLUS
DOCUMENT NUMBER: 91:78939
TITLE: "Thin layer chromatography combined with color spot test reactions for preliminary identification of papaveraceous alkaloids"
AUTHOR(S): *Engelke, Beatriz Ferreira; Vincent, Phillip G.*
CORPORATE SOURCE: Agric. Environ. Qual. Inst., Sci. Educ. Adm., Beltsville, MD, 20705, USA
SOURCE: **J. Assoc. Off. Anal. Chem. (1979), 62(3), 538-44**
CODEN: JANCA2; ISSN: 0004-5756
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Thin layer chromatog. (TLC) and color spot test reagents (CSTR) were used consecutively to identify isolated papaveraceous alkaloids. Fourteen alkaloid stds. were spotted on fluorescent and nonfluorescent silica gel G TLC plates and developed with 3 solvent systems. Spots were evaluated by appearance under daylight, appearance under short wavelength UV light, color developed by 2 spray reagents, and migration. Eighteen cryst. alkaloids were tested on spot plates with Froehde, Ferreira, Marquis plus oxidant, Mecke, and ferric oxidizing reagents. Colors developed were evaluated as a function of time. Color names were standardized by comparison with color plates from the Centroid Color Charts issued by the Intersociety Color Council of the National Bureau of Stds. TLC sepn. followed by CSTR is a useful anal. procedure for preliminary identification of alkaloids extd. from tissues of papaveraceae.

L8 ANSWER 24 OF 29 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1977:449561 CAPLUS
DOCUMENT NUMBER: 87:49561
TITLE: "Detection of bile salts with Komarowsky's reagent and group specific dehydrogenases"
AUTHOR(S): *Macdonald, Ian A.*
CORPORATE SOURCE: Dep. Med., Dalhousie Univ., Halifax, Nova Scotia, Can.
SOURCE: **J. Chromatogr. (1977), 136(2), 348-52**
CODEN: JOCRAM
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Rapid preliminary structural information about bile salts and sterols can be obtained by thin-layer chromatog. with CHCl3-MeOH-HOAc solvents of varying proportions and polarity, followed by reaction with Komarowsky's reagent (p-hydroxybenzaldehyde-H2SO4) as a spray reagent and then further

reaction of the eluted spots with 3.alpha.- and 7.alpha.-hydroxysteroid dehydrogenase. After mobility and color of the reaction spot were detd. the colors were allowed to fade (1-2 days). The spots were scraped from the plate and eluted into cuvettes with MeOH or MeOH-Et2O. The solvents were dried and either enzyme, in a buffered mixt. contg. NAD, was added. Because the Komarowsky reagent is essentially nondestructive, the bile salts of appropriate structure were able to react with the enzyme and their presence was detected by the appearance of NADH, obsd. at 340 nm.

L8 ANSWER 27 OF 29 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1968:68563 CAPLUS
DOCUMENT NUMBER: 68:68563
TITLE: "Thin-layer and paper chromatography of reaction mixtures and products of the condensation of phenol with formaldehyde"
AUTHOR(S): *Adorova, I. V.; Kovner, V. Ya.; Siling, M. I.*
SOURCE: **Plast. Massy (1968), (1), 60-1**
CODEN: PLMSAI
DOCUMENT TYPE: Journal
LANGUAGE: Russian
AB A detailed description of paper chromatog. (PC) and thin layer chromatog. (TLC) of reaction by-products present in the product of PhOH-HCHO reaction. PC was carried out in a closed cylinder, using 17 .times. 52 strips of Soviet paper M. The paper was satd. with vapors of 200:63:3 C6H6-AcOH-H2O for 1 hr. The sample was applied as a 1:15 soln. in EtOH. After chromatog. the paper was dried in air and sprayed with 1% acetone soln. of p-nitrobenzenediazonium fluoroborate. TLC was carried out on glass slides coated with an aq. slurry of silica gel, contg. 5% gypsum and dried 20 min. in air and 30 min. at 110.degree.. Best solvent system was 200:63:1.54 C6H6-AcOH-H2O. The following Rf values were found with the above solvent system (compd., Rf by PC, and Rf by TLC given): PhOH, -, 0.78; (o-HOC6H4)2CH2, 0.70, 0.73; o-HOC6H4CH2C6H4OH-p, 0.57, 0.57; (p-HOC6H4)2CH2, 0.52, 0.52; o-HOCH2C6H4OH, 0.48, 0.48; p-HOCH2C6H4OH, 0.33, 0.32; 2,6-(HOCH2)2C6H3OH, 0.36, 0.32; 2,4-(HOCH2)2C6H3OH, 0.15, 0.15; 2,4,6-(HOCH2)3C6H2OH, 0.05, 0.07. Area of stain (S) was found to bear quant. relation to component concn. (C); for PC log C = S and for TCL log C = S1/2. The functions were linear. Crude product of PhOH-HCHO reaction contained 3-15% of all the above compds. with the exception of (o-HOC6H4)2CH2; the amt. of 2,6-(HOCH2)2C6H3OH was very small.

L1 896 S (TLC OR "THIN LAYER CHROMATOGRAPHY") (3A) (DERIVATIZ? OR DERI
L2 280 S L1 AND "ON PLATE"
L3 2 S L1 AND (SYNTH? OR REQACT?) (3W) TLC
L4 12 S L1 AND (SYNTH? OR REACT?) (3W) (TLC OR PLATE)
L5 499 S SPOT (2W) (SYNTH? OR REACT?)
L6 896 S L1 AND (TLC OR "THIN LAYER CHROMATOGRAPHY")
L7 18 S L5 AND (TLC OR "THIN LAYER CHROMATOGRAPHY")
L4 ANSWER 5 OF 12 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1990:48073 CAPLUS
DOCUMENT NUMBER: 112:48073
TITLE: Determination of diisocyanates by thin-layer chromatography
AUTHOR(S): Dukhovnaya, I. S.; Yun, E. M.
CORPORATE SOURCE: All-Union Sci. Res. Inst. Hyg. Toxicol. Pesticides, Polym. Plast., Kiev, USSR
SOURCE: Zh. Anal. Khim. (1989), 44(7), 1296-301
CODEN: ZAKHA8; ISSN: 0044-4502
DOCUMENT TYPE: Journal
LANGUAGE: Russian
AB Chromatog. sepn. was studied of 2,4- and 2,6-toluenediisocyanate, 4,4'-diphenylmethanediisocyanate, 1,6-hexamethylenediisocyanate (I-IV), and their derivs. (reaction products with aminopyridines) on silica gel layers and Silufol plates using aq. solvents, or their mixts. with NH4OH or acetic acid as the mobile phases. Only I and II could be detd. by thin layer charomatog. directly; III and IV reacted on the plate surface. The best results were obtained by derivatizing with 2-aminopyridine. Methods are proposed of detn. of I-IV in H2O and of I and II in air. Thus, I and II are extd. from H2O with benzene, the exts. are dried, vacuum concd. and chromatographed on thin silica gel layer using 9:1 CHCl3-MeOH. Nitroprusside reagent is used for visualization; the detection limit for the sum of the isomers is 0.01 mg/L. III and IV are extd. from H2O with benzene, the ext. is dried, mixed with 2% 2-aminopyridine in benzene; then, after benzene is partially removed, the ext. is chromatographed on thin silica gel layer using 1:1 CHCl3-Me2CO or 9:1 CHCl3-EtOH with subsequent visualization with Dragendorff's reagent. Detection limits for III and IV are 0.02 and 0.01 mg/L, resp. For detn. of I and II in air the sample is aspirated through 2 absorbers contg. 0.02% 2-aminopyridine for 10-60 min with the rate of 0.5 L/min at .ltoreq.10.degree.. Subsequent sample treatment is as above. The detection limit for I + II is 0.0015 mg/m3.

L7 ANSWER 1 OF 18 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1997:372225 CAPLUS
DOCUMENT NUMBER: 127:130134
TITLE: Possibility of formation of colored spots of inorganic ions with organic reagents on thin layers of cellulose and silica gel. II

AUTHOR(S): Soljic, Z.; Hrestak, Z.; Eskinja, I.
CORPORATE SOURCE: Dep. Analytical Chem., Fac. Chem. Eng. Technol., Univ. Zagreb, Zagreb, 10000, Croatia
SOURCE: Kem. Ind. (1997), 46(5), 195-202
CODEN: KJUIAR; ISSN: 0022-9830
PUBLISHER: Hrvatsko Drustvo Kemijskih Inzenjera i Tehnologa
DOCUMENT TYPE: Journal
LANGUAGE: Croatian

AB The reactions of the following inorg. ions: Au3+, Ce4+, Ga3+, Ga3+, Ge(IV), Pt4+, Rb3+, Se(IV), Si(IV), Th4+, Tl+, UO22+, V5+ and W(VI) with numerous org. reagents on microcryst. cellulose and silica gel thin layers were studied. Exptl.: Thin layers were prepd. from water suspensions of sorbents cellulose: water = 1:3 and silica gel: water = 1:2,5; Layers were dried at room temp., over night; Water solns. of salts (chlorides and nitrates or sulfates), concns. of ions 1-5 mg/mL, were used as samples; Reagents were dissolved in org. solvents, most frequently in ethanol, usually 0,1 g reagent in 100 mL solvent. Procedure: One drop of cation soln. was spotted on cellulose layer and one on silica gel layer, spots were dried and both sprayed with the same reagent soln., and exposed to NH3 vapor (and sometimes to UV light). Results of studies are presented in Tables 1 and 2. Reagents which don't give colored spots at all: on cellulose - malachite green, 1,5-diphenylcarbazone, cupferrone, chromitropic acid, mercaptobenzothiazole, dimethylglyoxime, titan yellow, and sulfonazo III; on silica gel - alizarin yellow, 2-mercaptobenzothiazole, dimethylglyoxime, quinalizarin, sulfonazo III, titan yellow, calcein without NH3, rubeanic acid, 1,5-diphenylcarbazone, diethyldithiocarbamate, cupferrone, chromotropic acid and salicyladoxine. Some reagents react specifically only with one, two or three ions on both sorbents. The results showed different behavior of majority studied reagents on cellulose and on silica gel thin layers; the spot colors and the possibility of colored spots formation are very different on these two sorbents. The differences are esp. dependent on acidity (basicity) of medium. It is included from results obtained that sorbent influences the reaction between ion and org. reagent; with electron forces of its particles the sorbent acts to complex (compd.) and products such conditions for the absorption of particular wavelengths of electromagnetic spectrum, and thus it takes part in formation of the spot color. The results obtained in this study are applicable in qual. and quant. analyses of mentioned ions, in the 1st place in planar chromatog., and also in spot test reactions, spectrophotometry etc.

L7 ANSWER 7 OF 18 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1991:2879 CAPLUS
DOCUMENT NUMBER: 114:2879
TITLE: Stepwise gradient in thin-layer chromatography of Chelidonium alkaloids
AUTHOR(S): Matysik, G.; Jusiak, L.
CORPORATE SOURCE: Dep. Inorg. Anal. Chem., Med. Acad., Lublin, 20081, Pol.

SOURCE: J. Chromatogr. (1990), 518(1), 273-6
CODEN: JOCRAM; ISSN: 0021-9673
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Six-step gradient elution programs with binary and ternary eluents were applied to the anal. of Chelidonium alkaloids in industrial waste alkaloid fraction. The use of EtOAc as a component of the mobile phase, owing to its moderate eluent strength, eliminated the effect of solvent demixing; the alkaloid spots are well shaped and compact, distributed along the whole chromatogram. Twelve spots reacting with Dragendorff's reagent are visible, including a large amt. of chelidonine and trace amts. of 3 alkaloids which could not be sepd. in isocratic systems. These are presumably chelamine, chelamidine, and coptisine (1989). The total no. of sepd. spots visible under UV light is .apprx.30. It is also noteworthy that 2 pairs of alkaloids are well sepd. in the system reported, i.e., protopine-allocryptopine and chelerithrine-sanguinarine (pseudochelerithrine), with minor structural differences (dimethoxy or methylenedioxy groups).

L7 ANSWER 10 OF 18 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1985:534171 CAPLUS
DOCUMENT NUMBER: 103:134171
TITLE: Detection of citrazinic acid by paper and thin -layer chromatography
AUTHOR(S): Cee, A.; Horakova, B.
CORPORATE SOURCE: Res. Inst. Org. Synth., Pardubice, Czech.
SOURCE: J. Chromatogr. (1985), 331(1), 202-3
CODEN: JOCRAM; ISSN: 0021-9673
DOCUMENT TYPE: Journal
LANGUAGE: English
AB P-Dimethylaminobenzaldehyde was used for the paper and thin-layer chromatog. detection of citrazinic acid. The reagent gives a red-violet spots by reaction with the free citrazinic acid and citrazinamide. The reaction products were identified by mass spectrometry. The eluent was 2:1 PrOH-NH4OH.

L7 ANSWER 11 OF 18 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1979:478939 CAPLUS
DOCUMENT NUMBER: 91:78939
TITLE: Thin layer chromatography combined with color spot test reactions for preliminary identification of papaveraceous alkaloids
AUTHOR(S): Engelke, Beatriz Ferreira; Vincent, Phillip G.
CORPORATE SOURCE: Agric. Environ. Qual. Inst., Sci. Educ. Adm., Beltsville, MD, 20705, USA
SOURCE: J. Assoc. Off. Anal. Chem. (1979), 62(3), 538-44
CODEN: JANCA2; ISSN: 0004-5756
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Thin layer chromatog. (TLC) and color spot test reagents (CSTR) were used consecutively to identify isolated papaveraceous alkaloids. Fourteen alkaloid stds. were spotted on fluorescent and nonfluorescent silica gel G TLC plates and developed with 3 solvent systems. Spots were evaluated by appearance under daylight, appearance under short wavelength UV light, color developed by 2 spray reagents, and migration. Eighteen cryst. alkaloids were tested on spot plates with Froehde, Ferreira, Marquis plus oxidant, Mecke, and ferric oxidizing reagents. Colors developed were evaluated as a function of time. Color names were standardized by comparison with color plates from the Centroid Color Charts issued by the Intersociety Color Council of the National Bureau of Stds. TLC sepn. followed by CSTR is a useful anal. Procedure for preliminary identification of alkaloids extd. from tissues of papaveraceae.

7 ANSWER 13 OF 18 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1971:71477 CAPLUS
DOCUMENT NUMBER: 74:71477
TITLE: Two-layer plate for thin layer chromatography
PATENT ASSIGNEE(S): Merck, E., A.-G.
SOURCE: Brit., 6 pp.
CODEN: BRXXAA
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 1213445		19701125		

PRIORITY APPLN. INFO.: DE 19680719

AB The title plate is suitable for amino-acid chromatog., without prior desalting of the sample. The plate consists of 2 contiguous layers. The 1st one or reaction layer is .apprx.15% of the width of the 2nd or sorption layer, which is 1.5-2 cm wide. The sorption layer contains any agent suitable for chromatog. of amino acids such as cellulose, silica gel, or kieselguhr. The reaction layer contains cellulose with either 50-80% of a strongly acid or strongly basic cellulose ion exchanger or .apprx.10% of a strongly acid or strongly basic ion exchanger on polystyrene. Suitable cellulose ion exchangers are cellulose phosphoric acid esters, (sulfomethyl)- or (sulfoethyl)-cellulose, polyphosphate impregnated cellulose, Ecteola cellulose, and triethylaminoethylcellulose (sic). Suitable polystyrene ion exchangers are polystyrenes contg. sulfonic acid or quaternary ammonium salt groups. Conveniently a binder such as CM-cellulose may be included. The amino acid-contg. solns. are applied as spots in the reaction layer, the layer rinsed with H2O, dried, and the plate dipped in the eluent. For instance, Merck Ion Exchanger I was comminuted and sieved

L1 896 S (TLC OR "THIN LAYER CHROMATOGRAPHY") (3A) (DERIVATIZ? OR DERI
L2 280 S L1 AND "ON PLATE"
L3 2 S L1 AND (SYNTH? OR REQACT?) (3W) TLC
L4 12 S L1 AND (SYNTH? OR REACT?) (3W) (TLC OR PLATE)
L5 499 S SPOT (2W) (SYNTH? OR REACT?)
L6 896 S L1 AND (TLC OR "THIN LAYER CHROMATOGRAPHY")
L7 18 S L5 AND (TLC OR "THIN LAYER CHROMATOGRAPHY")
L4 ANSWER 5 OF 12 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1990:48073 CAPLUS
DOCUMENT NUMBER: 112:48073
TITLE: Determination of diisocyanates by thin-layer chromatography
AUTHOR(S): Dukhovnaya, I. S.; Yun, E. M.
CORPORATE SOURCE: All-Union Sci. Res. Inst. Hyg. Toxicol. Pesticides, Polym. Plast., Kiev, USSR
SOURCE: Zh. Anal. Khim. (1989), 44(7), 1296-301
CODEN: ZAKHA8; ISSN: 0044-4502
DOCUMENT TYPE: Journal
LANGUAGE: Russian
AB Chromatog. sepn. was studied of 2,4- and 2,6-toluenediisocyanate, 4,4'-diphenylmethanediisocyanate, 1,6-hexamethylenediisocyanate (I-IV), and their derivs. (reaction products with aminopyridines) on silica gel layers and Silufol plates using aq. solvents, or their mixts. with NH4OH or acetic acid as the mobile phases. Only I and II could be detd. by thin layer charomatog. directly; III and IV reacted on the plate surface. The best results were obtained by derivatizing with 2-aminopyridine. Methods are proposed of detn. of I-IV in H2O and of I and II in air. Thus, I and II are extd. from H2O with benzene, the exts. are dried, vacuum concd. and chromatographed on thin silica gel layer using 9:1 CHCl3-MeOH. Nitroprusside reagent is used for visualization; the detection limit for the sum of the isomers is 0.01 mg/L. III and IV are extd. from H2O with benzene, the ext. is dried, mixed with 2% 2-aminopyridine in benzene; then, after benzene is partially removed, the ext. is chromatographed on thin silica gel layer using 1:1 CHCl3-Me2CO or 9:1 CHCl3-EtOH with subsequent visualization with Dragendorff's reagent. Detection limits for III and IV are 0.02 and 0.01 mg/L, resp. For detn. of I and II in air the sample is aspirated through 2 absorbers contg. 0.02% 2-aminopyridine for 10-60 min with the rate of 0.5 L/min at .ltoreq.10.degree.. Subsequent sample treatment is as above. The detection limit for I + II is 0.0015 mg/m3.

L7 ANSWER 1 OF 18 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1997:372225 CAPLUS
DOCUMENT NUMBER: 127:130134
TITLE: Possibility of formation of colored spots of inorganic ions with organic reagents on thin layers of cellulose and silica gel. II

AUTHOR(S): Soljic, Z.; Hrestak, Z.; Eskinja, I.
CORPORATE SOURCE: Dep. Analytical Chem., Fac. Chem. Eng. Technol., Univ. Zagreb, Zagreb, 10000, Croatia
SOURCE: Kem. Ind. (1997), 46(5), 195-202
CODEN: KJUIAR; ISSN: 0022-9830
PUBLISHER: Hrvatsko Drustvo Kemijskih Inzenjera i Tehnologa
DOCUMENT TYPE: Journal
LANGUAGE: Croatian

AB The reactions of the following inorg. ions: Au3+, Ce4+, Ga3+, Ga3+, Ge(IV), Pt4+, Rb3+, Se(IV), Si(IV), Th4+, Tl+, UO22+, V5+ and W(VI) with numerous org. reagents on microcryst. cellulose and silica gel thin layers were studied. Exptl.: Thin layers were prepd. from water suspensions of sorbents cellulose: water = 1:3 and silica gel: water = 1:2,5; Layers were dried at room temp., over night; Water solns. of salts (chlorides and nitrates or sulfates), concns. of ions 1-5 mg/mL, were used as samples; Reagents were dissolved in org. solvents, most frequently in ethanol, usually 0,1 g reagent in 100 mL solvent. Procedure: One drop of cation soln. was spotted on cellulose layer and one on silica gel layer, spots were dried and both sprayed with the same reagent soln., and exposed to NH3 vapor (and sometimes to UV light). Results of studies are presented in Tables 1 and 2. Reagents which don't give colored spots at all: on cellulose - malachite green, 1,5-diphenylcarbazone, cupferrone, chromitropic acid, mercaptobenzothiazole, dimethylglyoxime, titan yellow, and sulfonazo III; on silica gel - alizarin yellow, 2-mercaptobenzothiazole, dimethylglyoxime, quinalizarin, sulfonazo III, titan yellow, calcein without NH3, rubeanic acid, 1,5-diphenylcarbazone, diethyldithiocarbamate, cupferrone, chromotropic acid and salicyladoxine. Some reagents react specifically only with one, two or three ions on both sorbents. The results showed different behavior of majority studied reagents on cellulose and on silica gel thin layers; the spot colors and the possibility of colored spots formation are very different on these two sorbents. The differences are esp. dependent on acidity (basicity) of medium. It is included from results obtained that sorbent influences the reaction between ion and org. reagent; with electron forces of its particles the sorbent acts to complex (compd.) and products such conditions for the absorption of particular wavelengths of electromagnetic spectrum, and thus it takes part in formation of the spot color. The results obtained in this study are applicable in qual. and quant. analyses of mentioned ions, in the 1st place in planar chromatog., and also in spot test reactions, spectrophotometry etc.

L7 ANSWER 7 OF 18 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1991:2879 CAPLUS
DOCUMENT NUMBER: 114:2879
TITLE: Stepwise gradient in thin-layer chromatography of Chelidonium alkaloids
AUTHOR(S): Matysik, G.; Jusiak, L.
CORPORATE SOURCE: Dep. Inorg. Anal. Chem., Med. Acad., Lublin, 20081, Pol.

SOURCE: J. Chromatogr. (1990), 518(1), 273-6
CODEN: JOCRAM; ISSN: 0021-9673
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Six-step gradient elution programs with binary and ternary eluents were applied to the anal. of Chelidonium alkaloids in industrial waste alkaloid fraction. The use of EtOAc as a component of the mobile phase, owing to its moderate eluent strength, eliminated the effect of solvent demixing; the alkaloid spots are well shaped and compact, distributed along the whole chromatogram. Twelve spots reacting with Dragendorff's reagent are visible, including a large amt. of chelidonine and trace amts. of 3 alkaloids which could not be sepd. in isocratic systems. These are presumably chelamine, chelamidine, and coptisine (1989). The total no. of sepd. spots visible under UV light is .apprx.30. It is also noteworthy that 2 pairs of alkaloids are well sepd. in the system reported, i.e., protopine-allocryptopine and chelerithrine-sanguinarine (pseudochelerithrine), with minor structural differences (dimethoxy or methylenedioxy groups).

L7 ANSWER 10 OF 18 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1985:534171 CAPLUS
DOCUMENT NUMBER: 103:134171
TITLE: Detection of citrazinic acid by paper and thin -layer chromatography
AUTHOR(S): Cee, A.; Horakova, B.
CORPORATE SOURCE: Res. Inst. Org. Synth., Pardubice, Czech.
SOURCE: J. Chromatogr. (1985), 331(1), 202-3
CODEN: JOCRAM; ISSN: 0021-9673
DOCUMENT TYPE: Journal
LANGUAGE: English
AB P-Dimethylaminobenzaldehyde was used for the paper and thin-layer chromatog. detection of citrazinic acid. The reagent gives a red-violet spots by reaction with the free citrazinic acid and citrazinamide. The reaction products were identified by mass spectrometry. The eluent was 2:1 PrOH-NH4OH.

L7 ANSWER 11 OF 18 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1979:478939 CAPLUS
DOCUMENT NUMBER: 91:78939
TITLE: Thin layer chromatography combined with color spot test reactions for preliminary identification of papaveraceous alkaloids
AUTHOR(S): Engelke, Beatriz Ferreira; Vincent, Phillip G.
CORPORATE SOURCE: Agric. Environ. Qual. Inst., Sci. Educ. Adm., Beltsville, MD, 20705, USA
SOURCE: J. Assoc. Off. Anal. Chem. (1979), 62(3), 538-44
CODEN: JANCA2; ISSN: 0004-5756
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Thin layer chromatog. (TLC) and color spot test reagents (CSTR) were used consecutively to identify isolated papaveraceous alkaloids. Fourteen alkaloid stds. were spotted on fluorescent and nonfluorescent silica gel G TLC plates and developed with 3 solvent systems. Spots were evaluated by appearance under daylight, appearance under short wavelength UV light, color developed by 2 spray reagents, and migration. Eighteen cryst. alkaloids were tested on spot plates with Froehde, Ferreira, Marquis plus oxidant, Mecke, and ferric oxidizing reagents. Colors developed were evaluated as a function of time. Color names were standardized by comparison with color plates from the Centroid Color Charts issued by the Intersociety Color Council of the National Bureau of Stds. TLC sepn. followed by CSTR is a useful anal. Procedure for preliminary identification of alkaloids extd. from tissues of papaveraceae.

7 ANSWER 13 OF 18 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1971:71477 CAPLUS
DOCUMENT NUMBER: 74:71477
TITLE: Two-layer plate for thin layer chromatography
PATENT ASSIGNEE(S): Merck, E., A.-G.
SOURCE: Brit., 6 pp.
CODEN: BRXXAA
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

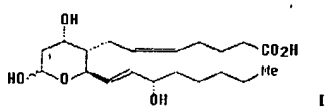
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 1213445		19701125		

PRIORITY APPLN. INFO.: DE 19680719

AB The title plate is suitable for amino-acid chromatog., without prior desalting of the sample. The plate consists of 2 contiguous layers. The 1st one or reaction layer is .apprx.15% of the width of the 2nd or sorption layer, which is 1.5-2 cm wide. The sorption layer contains any agent suitable for chromatog. of amino acids such as cellulose, silica gel, or kieselguhr. The reaction layer contains cellulose with either 50-80% of a strongly acid or strongly basic cellulose ion exchanger or .apprx.10% of a strongly acid or strongly basic ion exchanger on polystyrene. Suitable cellulose ion exchangers are cellulose phosphoric acid esters, (sulfomethyl)- or (sulfoethyl)-cellulose, polyphosphate impregnated cellulose, Ecteola cellulose, and triethylaminoethylcellulose (sic). Suitable polystyrene ion exchangers are polystyrenes contg. sulfonic acid or quaternary ammonium salt groups. Conveniently a binder such as CM-cellulose may be included. The amino acid-contg. solns. are applied as spots in the reaction layer, the layer rinsed with H2O, dried, and the plate dipped in the eluent. For instance, Merck Ion Exchanger I was comminuted and sieved

through a 60-.mu. sieve. The sieve fines were successively washed with 1N HCl, H2O, MeOH, ether and then air dried. Next, 45 g microcryst. cellulose and 5 g exchanger were suspended in 180 ml aq. soln. of 0.08% CM-cellulose. Also, 50 g cellulose was homogenized in 200 ml H2O. Then 0.25 mm thick layers of both suspensions were applied in strips of the appropriate width to a plate, after which the plate was dried for 15 min at 85.degree..

L12 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1983:191869 CAPLUS
DOCUMENT NUMBER: 98:191869
TITLE: A rapid and simple assay for the study of thromboxane B2 synthesis by intact human platelets
AUTHOR(S): Margotat, Alain; Sampol, Jose; Hawthorn, Dominique; Dumas, Dominique; Leone, Monique
CORPORATE SOURCE: Lab. Biochim. Med., INSERM, Marseille, 13385, Fr.
SOURCE: J. Pharmacol. Methods (1983), 9(1), 63-70
CODEN: JPMED9; ISSN: 0160-5402
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



I

AB Conversion of 1-14C-labeled arachidonic acid (AA) [506-32-1] to TXB2 (I) [54397-85-2] by human platelets was studied by using a new, simple technique. Org. solvent extn. was avoided by spotting aliquots of the reaction mixt. directly on TLC plates. The plates were developed in CHCl3-MeOH-HOAc-H2O (90:10:4:1), and the spots were visualized with I vapor and counted. In this way it was possible to study the kinetic parameters of the formation of I.

09680471

L1 29170 S (SYNTHES? OR REACT?) (6A) (TCL OR SILICAGEL OR SPOT? OR MEMBR
L2 539 S L1 AND ((PLURAL? OR MULTI? OR PARALLEL) (6A) (SYNTHES? OR REA
L3 109 S L2 AND SEPARAT?
L4 2 S L3 AND SCREEN?

L4 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2001:234139 CAPLUS
DOCUMENT NUMBER: 134:367149
TITLE: Positionally addressable parallel synthesis on continuous membranes
AUTHOR(S): Wenschuh, Holger; Gausepohl, Heinrich; Germeroth, Lothar; Ulbricht, Mathias; Matuschewski, Heike; Kramer, Achim; Volkmer-Engert, Rudolf; Heine, Niklas; Ast, Thomas; Scharn, Dirk; Schneider-Mergener, Jens
CORPORATE SOURCE: Jerini Bio Tools GmbH, Berlin, 12489, Germany
SOURCE: Combinatorial Chemistry (2000), 95-116. Editor(s): Fenniri, Hicham. Oxford University Press: Oxford, UK.
CODEN: 69BBZ2
DOCUMENT TYPE: Conference; General Review
LANGUAGE: English
AB A review with 20 refs. Spatially addressable high-throughput solid phase synthesis of large arrays of compds. has generated intense interest over the past few years. Besides parallel synthesis on resin beads, polymeric pins and chips, SPOT synthesis using continuous membrane supports has been shown to be an efficient solid phase synthetic alternative. The development of this approach was fuelled by the need for a facile and economical complement to the classical solid phase synthesis procedures with increased flexibility and amenability to miniaturization and automation. The key feature of the SPOT method is the positionally addressed delivery of small vols. of liqs. directly to the membrane support. The droplets dispensed form sep . SPOTS and can be considered as microreactors. The vols. dispensed create a specific SPOT size detg. both the scale of reaction and the abs. no. of compds. that can be arranged on an area of a membrane. The compds. synthesized can be evaluated while still attached to the membrane, or in soln. after release from the membrane, using conventional high-throughput screening techniques.Semi-automated SPOT synthesis of large arrays of compd. is also possible using the ABIMED ASP 222 robotic system.
REFERENCE COUNT: 20 THERE ARE 20 CITED REFERENCES

L4 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1993:464061 CAPLUS
DOCUMENT NUMBER: 119:64061
TITLE: Polymerase chain reaction and other methods to detect hot-spot and multiple gene mutations
AUTHOR(S): Lebacq, P.
CORPORATE SOURCE: Bioprobe Syst. Lab., Montreuil-sous-Bois, 93100, Fr.

SOURCE: Annales de Biologie Clinique (1992), 50(10-11), 709-12
CODEN: ABCLAI; ISSN: 0003-3898
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English

AB A review with 19 refs. Gene mutations responsible for main genetic diseases as Duchenne/Becker muscular dystrophy or cystic fibrosis, and involved in more important diseases like cancer or cardiac diseases have been identified. Direct DNA tests can now be performed for these disorders. However, despite the knowledge of the exact alteration of the DNA sequence in these diseases, incorporating DNA anal. into large screening programs has been hindered by tech. difficulties since each different mutation requires a different probe to be detected. To overcome these problems the polymerase chain reaction technique (PCR) has been proposed. Multiplex PCR procedure is possible and consists of simultaneously amplifying several sep. DNA sequences (the upper limit of the no. of multiplex reactions that can be executed at one time is not known; eight or nine sep. DNA sequences amplified have already been described). Another approach is to directly sequence the gene mutations generally concd. in hot-spot regions. This way it is possible to identify numerous mutations using only one micro-sequencing reaction (50-100 nucleotides). New generations of very sophisticated systems like capillary electrophoresis or non-isotopic, but very sensitive, microsequencing systems should in the near future eliminate the need for PCR.

L3 ANSWER 1 OF 109 CAPLUS COPYRIGHT 2002 ACS
TI Innovative Membrane-Based Catalytic Process for Environmentally Friendly Synthesis of Oxygenates

L3 ANSWER 2 OF 109 CAPLUS COPYRIGHT 2002 ACS
TI Production of hydrogen from hydrocarbon fuel by reforming in a plasma-generating reactor

L3 ANSWER 3 OF 109 CAPLUS COPYRIGHT 2002 ACS
TI Plasma CVD device. [Machine Translation].

L3 ANSWER 4 OF 109 CAPLUS COPYRIGHT 2002 ACS
TI Study on performance of continuous enzyme reactor with dynamic membrane-separation

L3 ANSWER 5 OF 109 CAPLUS COPYRIGHT 2002 ACS
TI Multi-enzyme immobilization in eco-friendly emulsion liquid membrane reactor - a new approach to membrane formulation

L3 ANSWER 6 OF 109 CAPLUS COPYRIGHT 2002 ACS
TI Synthesis, characterization, and performance of sulfonated polyethersulfone nanofiltration membranes

L3 ANSWER 7 OF 109 CAPLUS COPYRIGHT 2002 ACS
TI Dendritic Aliphatic Polyethers as High-Loading Soluble Supports for Carbonyl Compounds and Parallel Membrane Separation Techniques

L3 ANSWER 8 OF 109 CAPLUS COPYRIGHT 2002 ACS
TI Multi-component composite membrane and method for preparing the same

L3 ANSWER 9 OF 109 CAPLUS COPYRIGHT 2002 ACS

TI Fuel gas production system for fuel cells

L3 ANSWER 10 OF 109 CAPLUS COPYRIGHT 2002 ACS

TI Epitope mapping with synthetic peptides prepared by SPOT synthesis

L3 ANSWER 11 OF 109 CAPLUS COPYRIGHT 2002 ACS

TI Enzymatic synthesis of amoxicillin: Process integration using multiphase systems

L3 ANSWER 12 OF 109 CAPLUS COPYRIGHT 2002 ACS

TI A two-step process for controlling the surface smoothness of polyelectrolyte-based microcapsules

L3 ANSWER 13 OF 109 CAPLUS COPYRIGHT 2002 ACS

TI On the potential of the multifunctional three phase catalytic membrane reactor in the selective oxidation of light alkanes by Fe2+-H2O2 Fenton system

L3 ANSWER 14 OF 109 CAPLUS COPYRIGHT 2002 ACS

TI The partial oxidation of methane to syngas in a palladium membrane reactor: simulation and experimental studies

L3 ANSWER 15 OF 109 CAPLUS COPYRIGHT 2002 ACS

TI An experimental study of multilayered composite palladium membrane reactors for partial oxidation of methane to syngas

L3 ANSWER 16 OF 109 CAPLUS COPYRIGHT 2002 ACS

TI Stereoselective synthesis of (S)-(+)-Naproxen catalyzed by carboxyl esterase in a multicompartment electrolyzer

L3 ANSWER 17 OF 109 CAPLUS COPYRIGHT 2002 ACS

TI Oxygen-Free Methane Aromatization in a Catalytic Membrane Reactor

L3 ANSWER 18 OF 109 CAPLUS COPYRIGHT 2002 ACS

TI Solid multicomponent membrane for oxygen separation in applications with high driving forces for oxygen transport

L3 ANSWER 19 OF 109 CAPLUS COPYRIGHT 2002 ACS

TI Activated sludge wastewater treatment system using dynamic filtration membranes

L3 ANSWER 20 OF 109 CAPLUS COPYRIGHT 2002 ACS

TI Positionally addressable parallel synthesis on continuous membranes

L3 ANSWER 21 OF 109 CAPLUS COPYRIGHT 2002 ACS

TI An experimental and theoretical investigation of a catalytic membrane reactor for the oxidative dehydrogenation of methanol

L3 ANSWER 22 OF 109 CAPLUS COPYRIGHT 2002 ACS

TI Synthesis of biologically active dipeptide in a multiphase enzyme membrane reactor

L3 ANSWER 23 OF 109 CAPLUS COPYRIGHT 2002 ACS

TI Membrane-separated, bipolar multicell electrochemical reactor

L3 ANSWER 24 OF 109 CAPLUS COPYRIGHT 2002 ACS

TI Method and multi-channel membrane device for high throughput cell free protein synthesis

L3 ANSWER 25 OF 109 CAPLUS COPYRIGHT 2002 ACS

TI Technical aspects of separation and simultaneous enzymatic reaction in multiphase enzyme membrane reactors

L3 ANSWER 26 OF 109 CAPLUS COPYRIGHT 2002 ACS

TI Membrane reactor with retentate purification step for hydrogen manufacture from hydrocarbon-type feedstocks

L3 ANSWER 27 OF 109 CAPLUS COPYRIGHT 2002 ACS
TI Catalytic combustion of propane in a membrane reactor with separate feed of reactants. IV. Transition from the kinetics- to the transport-controlled regime
L3 ANSWER 28 OF 109 CAPLUS COPYRIGHT 2002 ACS
TI Applications of a non-permselective, catalytically active membrane. A model study
L3 ANSWER 29 OF 109 CAPLUS COPYRIGHT 2002 ACS
TI Process intensification: Transforming chemical engineering
L3 ANSWER 30 OF 109 CAPLUS COPYRIGHT 2002 ACS
TI Reaction coupling and separation in novel chemical reactors
L3 ANSWER 31 OF 109 CAPLUS COPYRIGHT 2002 ACS
TI Innovations in catalytic inorganic membrane reactors
L3 ANSWER 32 OF 109 CAPLUS COPYRIGHT 2002 ACS
TI Mutation in a gene required for lipopolysaccharide and enterobacterial common antigen biosynthesis affects virulence in the plant pathogen Erwinia carotovora subsp. atroseptica
L3 ANSWER 33 OF 109 CAPLUS COPYRIGHT 2002 ACS
TI Integration of reaction and separation in manufacturing of pharmaceuticals: membrane-mediated production of S-ibuprofen
L3 ANSWER 34 OF 109 CAPLUS COPYRIGHT 2002 ACS
TI An attractive option for CO2 control in IGCC systems. Water/gas shift with integrated H2/CO2 separation (WIHYS) process. Phase 1. Proof of principle. Final report CEC project JOU2-CT92-0158
L3 ANSWER 35 OF 109 CAPLUS COPYRIGHT 2002 ACS
TI Fluid flow characteristic of enzymolysis reactor with membrane separation
L3 ANSWER 36 OF 109 CAPLUS COPYRIGHT 2002 ACS
TI Experimental study on deactivation of single-substrate enzyme sheared by impeller in enzymolysis reactor with membrane separation
L3 ANSWER 37 OF 109 CAPLUS COPYRIGHT 2002 ACS
TI Trends in catalytic reaction engineering
L3 ANSWER 38 OF 109 CAPLUS COPYRIGHT 2002 ACS
TI Modeling of biofouling by extracellular polymers in a membrane separation activated sludge system
L3 ANSWER 39 OF 109 CAPLUS COPYRIGHT 2002 ACS
TI Biomimetic way to improve liquid membranes. Facilitated transport with a mobile carrier and mediator
L3 ANSWER 40 OF 109 CAPLUS COPYRIGHT 2002 ACS
TI Zeolite containing catalytic membranes as interphase contactors
L3 ANSWER 41 OF 109 CAPLUS COPYRIGHT 2002 ACS
TI Synthesis of multilayer ceramic membranes
L3 ANSWER 42 OF 109 CAPLUS COPYRIGHT 2002 ACS
TI Multilayer ceramic membranes for gas separation
L3 ANSWER 43 OF 109 CAPLUS COPYRIGHT 2002 ACS
TI Sludge activity under the conditions of crossflow microfiltration
L3 ANSWER 44 OF 109 CAPLUS COPYRIGHT 2002 ACS
TI Process conditions on the preparation of supported microporous SiO2 membranes by sol-gel modification techniques

L3 ANSWER 45 OF 109 CAPLUS COPYRIGHT 2002 ACS
TI Miniature FlowProbeTM chemical sensor
L3 ANSWER 46 OF 109 CAPLUS COPYRIGHT 2002 ACS
TI Water gas shift membrane reactor for CO2 control in IGCC systems: techno-economic feasibility study
L3 ANSWER 47 OF 109 CAPLUS COPYRIGHT 2002 ACS
TI Membrane Separation for Downstream Processing of Aqueous-Organic Bioconversions
L3 ANSWER 48 OF 109 CAPLUS COPYRIGHT 2002 ACS
TI The reduction of acetylpyridine adenine dinucleotide by NADH: is it a significant reaction of proton-translocating transhydrogenase, or an artifact?
L3 ANSWER 49 OF 109 CAPLUS COPYRIGHT 2002 ACS
TI Multiplex DNA sequencing with maximization of parallelism in sample handling, processing and analysis
L3 ANSWER 50 OF 109 CAPLUS COPYRIGHT 2002 ACS
TI Shaping of multilayer ceramic membranes by dip coating
L3 ANSWER 51 OF 109 CAPLUS COPYRIGHT 2002 ACS
TI Microporous inorganic membrane reactor
L3 ANSWER 52 OF 109 CAPLUS COPYRIGHT 2002 ACS
TI Mass transfer in parallel-plate separation devices with nonequilibrium facilitated reactive membranes
L3 ANSWER 53 OF 109 CAPLUS COPYRIGHT 2002 ACS
TI Synthesis, characterization and gas permeation studies on microporous silica and alumina-silica membranes for separation of propane and propylene
L3 ANSWER 54 OF 109 CAPLUS COPYRIGHT 2002 ACS
TI N-Acetylneuraminic acid: From a rare chemical from natural sources to a multikilogram enzymic synthesis for industrial application
L3 ANSWER 55 OF 109 CAPLUS COPYRIGHT 2002 ACS
TI Modified aromatic polyimide membrane preparation and pervaporation results for esterification system
L3 ANSWER 56 OF 109 CAPLUS COPYRIGHT 2002 ACS
TI Combination of synthesis and recovery of 2-(2'-hydroxy-5'- methylphenyl)-benzotriazole in a diaphragm electrolyzer
L3 ANSWER 57 OF 109 CAPLUS COPYRIGHT 2002 ACS
TI Membrane reactor/separator: a design for bimolecular reactant addition
L3 ANSWER 58 OF 109 CAPLUS COPYRIGHT 2002 ACS
TI Strategies for multiphase reactor selection
L3 ANSWER 59 OF 109 CAPLUS COPYRIGHT 2002 ACS
TI Theory of chemical reactors: calculation for reactor operation under nonisothermal conditions. III. Calculation for a tubular reactor and optimal temperature conditions for process performance
L3 ANSWER 60 OF 109 CAPLUS COPYRIGHT 2002 ACS
TI Process for preparation of peptide or polysaccharide libraries.
L3 ANSWER 61 OF 109 CAPLUS COPYRIGHT 2002 ACS
TI Multicomponent metal oxide catalytic membrane and its application to methane oxidative coupling

L3 ANSWER 62 OF 109 CAPLUS COPYRIGHT 2002 ACS
TI Study and Comparison of Two Enzyme Membrane Reactors for Fatty Acids and Glycerol Production
L3 ANSWER 63 OF 109 CAPLUS COPYRIGHT 2002 ACS
TI Solid multicomponent membranes, electrochemical reactor components, electrochemical reactors and use of membranes, reactor, components and reactor for oxidation reactions
L3 ANSWER 64 OF 109 CAPLUS COPYRIGHT 2002 ACS
TI A simple model for a water gas shift membrane reactor
L3 ANSWER 65 OF 109 CAPLUS COPYRIGHT 2002 ACS
TI Chemiluminescent DNA sequencing with multiplex labeling
L3 ANSWER 66 OF 109 CAPLUS COPYRIGHT 2002 ACS
TI Multilayered catalyst for controlled transport of reactant
L3 ANSWER 67 OF 109 CAPLUS COPYRIGHT 2002 ACS
TI Intermediate product yield enhancement with a catalytic inorganic membrane. I. Analytical model for the case of isothermal and differential operation
L3 ANSWER 68 OF 109 CAPLUS COPYRIGHT 2002 ACS
TI Weak acid transport across bilayer lipid membrane in the presence of buffers. Theoretical and experimental pH profiles in the unstirred layers
L3 ANSWER 69 OF 109 CAPLUS COPYRIGHT 2002 ACS
TI Polymerase chain reaction and other methods to detect hot- spot and multiple gene mutations
L3 ANSWER 70 OF 109 CAPLUS COPYRIGHT 2002 ACS
TI Membrane-assisted synthesis of chiral drug intermediates at the multikilogram scale
L3 ANSWER 71 OF 109 CAPLUS COPYRIGHT 2002 ACS
TI Liquid membrane process. A survey of multiple emulsion method. Applicability of the reaction-site model
L3 ANSWER 72 OF 109 CAPLUS COPYRIGHT 2002 ACS
TI The sol-gel approach to prepare candidate microporous inorganic membranes for membrane reactors
L3 ANSWER 73 OF 109 CAPLUS COPYRIGHT 2002 ACS
TI Separation of light hydrocarbon solvents from dewaxed and deasphalted oils by permeation through interfacially polymerized membranes
L3 ANSWER 74 OF 109 CAPLUS COPYRIGHT 2002 ACS
TI Chemically active liquid membranes in inorganic supports for metal ion separations
L3 ANSWER 75 OF 109 CAPLUS COPYRIGHT 2002 ACS
TI Preparation of amino acid esters
L3 ANSWER 76 OF 109 CAPLUS COPYRIGHT 2002 ACS
TI Multifunctional reactors
L3 ANSWER 77 OF 109 CAPLUS COPYRIGHT 2002 ACS
TI A membrane reactor with two dispersion-free interfaces for homogeneous catalytic reactions
L3 ANSWER 78 OF 109 CAPLUS COPYRIGHT 2002 ACS
TI T cell receptor gene rearrangements in the human response to myelin basic protein
L3 ANSWER 79 OF 109 CAPLUS COPYRIGHT 2002 ACS

TI Method for enzymic resolution of propanoic acids in multiphase extractive membrane reactors

L3 ANSWER 80 OF 109 CAPLUS COPYRIGHT 2002 ACS

TI Reactor with internal heat exchange and with a solid catalyst

L3 ANSWER 81 OF 109 CAPLUS COPYRIGHT 2002 ACS

TI Multiphase membrane reactors for separating stereoisomers

L3 ANSWER 82 OF 109 CAPLUS COPYRIGHT 2002 ACS

TI Liquid-liquid extractive membrane reactors

L3 ANSWER 83 OF 109 CAPLUS COPYRIGHT 2002 ACS

TI Novel solid multicomponent membranes and electrochemical reactor for oxidation reactions in waste gas treatment

L3 ANSWER 84 OF 109 CAPLUS COPYRIGHT 2002 ACS

TI Enzymic resolution of ibuprofen in a multiphase membrane reactor

L3 ANSWER 85 OF 109 CAPLUS COPYRIGHT 2002 ACS

TI Enzymic resolution with a multiphase membrane bioreactor: a theoretical analysis

L3 ANSWER 86 OF 109 CAPLUS COPYRIGHT 2002 ACS

TI Two groups of bullous pemphigoid antigens are identified by affinity-purified antibodies

L3 ANSWER 87 OF 109 CAPLUS COPYRIGHT 2002 ACS

TI Membrane bioreactors and chiral synthesis. Biocatalytic separation of optical isomers

L3 ANSWER 88 OF 109 CAPLUS COPYRIGHT 2002 ACS

TI Characterization of cell-associated proteoglycans synthesized by embryonic neural retinal cells

L3 ANSWER 89 OF 109 CAPLUS COPYRIGHT 2002 ACS

TI Performance of multistep immunochemical reactions by counterflow isotachophoresis on nitrocellulose membranes. I. Immunoblotting

L3 ANSWER 90 OF 109 CAPLUS COPYRIGHT 2002 ACS

TI Method and apparatus for conducting catalytic reactions with simultaneous product separation and recovery

L3 ANSWER 91 OF 109 CAPLUS COPYRIGHT 2002 ACS

TI Getting the product out. A multimembrane bioreactor with integral product recovery

L3 ANSWER 92 OF 109 CAPLUS COPYRIGHT 2002 ACS

TI Phase-transfer catalysis in a multiphase reaction apparatus containing a membrane permeable to the phase-transfer catalyst

L3 ANSWER 93 OF 109 CAPLUS COPYRIGHT 2002 ACS

TI Photoelectric currents across planar bilayer membranes containing bacterial reaction centers: the response under conditions of multiple reaction-center turnovers

L3 ANSWER 94 OF 109 CAPLUS COPYRIGHT 2002 ACS

TI Photosystem I charge separation in the absence of center A and B. III. Biochemical characterization of a reaction center particle containing P-700 and FX

L3 ANSWER 95 OF 109 CAPLUS COPYRIGHT 2002 ACS

TI Separation in mass-exchange devices with reactive membranes

L3 ANSWER 96 OF 109 CAPLUS COPYRIGHT 2002 ACS

TI Azo dye preparations

L3 ANSWER 97 OF 109 CAPLUS COPYRIGHT 2002 ACS

TI Comparison of mathematical model predictions for parallel planar electrochemical reactors

L3 ANSWER 98 OF 109 CAPLUS COPYRIGHT 2002 ACS

TI Autoimmune responses to host liver proteins

L3 ANSWER 99 OF 109 CAPLUS COPYRIGHT 2002 ACS

TI Divided electrochemical cell assembly

L3 ANSWER 100 OF 109 CAPLUS COPYRIGHT 2002 ACS

TI C-reactive protein antigenicity on the surface of human lymphocytes

L3 ANSWER 101 OF 109 CAPLUS COPYRIGHT 2002 ACS

TI Regeneration of defective hollow membrane separation modules

L3 ANSWER 102 OF 109 CAPLUS COPYRIGHT 2002 ACS

TI Synthesis of ion-exchange membrane for electrodialytic treatment of bleaching plant effluent

L3 ANSWER 103 OF 109 CAPLUS COPYRIGHT 2002 ACS

TI Photophosphorylation associated with photosystem II. IV. Kinetic analyses of photosystem II cyclic photophosphorylation activity: evidence for two cyclic reactions

L3 ANSWER 104 OF 109 CAPLUS COPYRIGHT 2002 ACS

TI Disappearance of calcium-induced phase separation in phosphatidylserine-phosphatidylcholine membranes caused by protonation and by electric current

L3 ANSWER 105 OF 109 CAPLUS COPYRIGHT 2002 ACS

TI Isolation of a multiprotein complex containing cytochrome b and c1 from Neurospora crassa mitochondria by affinity chromatography on immobilized cytochrome c. Difference in the binding between ferricytochrome c and ferrocytochrome c to the multiprotein complex

L3 ANSWER 106 OF 109 CAPLUS COPYRIGHT 2002 ACS

TI Synthesis of chloroplast membrane lipids and chlorophyll in synchronous cultures of Chlamydomonas reinhardi

L3 ANSWER 107 OF 109 CAPLUS COPYRIGHT 2002 ACS

TI Reactor separators incorporating membrane-bound enzymes

L3 ANSWER 108 OF 109 CAPLUS COPYRIGHT 2002 ACS

TI Macrophage plasma membrane. II. Synthesis and turnover of protein constituents

L3 ANSWER 109 OF 109 CAPLUS COPYRIGHT 2002 ACS

TI Importance of the reaction control in the synthesis of unsaturated polyesters from maleic anhydride

=> d l3 ibib abs 20, 33, 53, 57, 58, 60, 76, 81-83

L3 ANSWER 20 OF 109 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2001:234139 CAPLUS

DOCUMENT NUMBER: 134:367149

TITLE: Positionally addressable parallel synthesis on continuous membranes

AUTHOR(S): Wenschuh, Holger; Gausepohl, Heinrich; Germeroth, Lothar; Ulbricht, Mathias; Matuschewski, Heike; Kramer, Achim; Volkmer-Engert, Rudolf; Heine, Niklas; Ast, Thomas; Scharn, Dirk; Schneider-Mergener, Jens

CORPORATE SOURCE: Jerini Bio Tools GmbH, Berlin, 12489, Germany

SOURCE: Combinatorial Chemistry (2000), 95-116. Editor(s): Fenniri, Hicham. Oxford University Press: Oxford, UK.
CODEN: 69BBZ2
DOCUMENT TYPE: Conference; General Review
LANGUAGE: English
AB A review with 20 refs. Spatially addressable high-throughput solid phase synthesis of large arrays of compds. has generated intense interest over the past few years. Besides parallel synthesis on resin beads, polymeric pins and chips, SPOT synthesis using continuous membrane supports has been shown to be an efficient solid phase synthetic alternative. The development of this approach was fuelled by the need for a facile and economical complement to the classical solid phase synthesis procedures with increased flexibility and amenability to miniaturization and automation. The key feature of the SPOT method is the positionally addressed delivery of small vols. of liqs. directly to the membrane support. The droplets dispensed form sep. SPOTS and can be considered as microreactors. The vols. dispensed create a specific SPOT size detg. both the scale of reaction and the abs. no. of compds. that can be arranged on an area of a membrane. The compds. synthesized can be evaluated while still attached to the membrane, or in soln. after release from the membrane, using conventional high-throughput screening techniques. Semi-automated SPOT synthesis of large arrays of compd. is also possible using the ABIMED ASP 222 robotic system.
REFERENCE COUNT: 20 THERE ARE 20 CITED REFERENCES

L3 ANSWER 33 OF 109 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1999:302936 CAPLUS
DOCUMENT NUMBER: 131:120704
TITLE: Integration of reaction and separation in manufacturing of pharmaceuticals: membrane-mediated production of S-ibuprofen
AUTHOR(S): Cauwenberg, V.; Vergossen, P.; Stankiewicz, A.; Kierkels, H.
CORPORATE SOURCE: DSM Research, Geleen, 6160 MD, Neth.
SOURCE: Chemical Engineering Science (1999), 54(10), 1473-1477
CODEN: CESCAC; ISSN: 0009-2509
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The integration of the reaction and sepn. in a multifunctional reactor unit for the enantioselective prodn. of S-ibuprofen is studied, both exptl. and by kinetic modeling. The ultrafiltration by a com. available polyacrylonitril membrane is used for the in-situ removal of the product. The application of the online ultrafiltration leads to a twofold increase in the overall productivity, that is due to the decrease of the deactivation and inhibition of the enzyme caused by the product. After initial decrease, probably caused by the fouling, the fluxes through the membrane remain stable for a long period of time. The concept presents a promising option for other systems with conversion limited by the inhibitory effect of the products.
REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE

L3 ANSWER 53 OF 109 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1996:484926 CAPLUS
DOCUMENT NUMBER: 125:121492
TITLE: Synthesis, characterization and gas permeation studies on microporous silica and alumina-silica membranes for separation of propane and propylene
AUTHOR(S): Nair, Balagopal N.; Keizer, Klaas; Elferink, Wilma J.; Gilde, Melis J.; Verweij, Henk; Burggraaf, Anthonie J.
CORPORATE SOURCE: Inorg. Mater. Sci., Univ. Twente, Enschede, 7500 AE, Neth.
SOURCE: Journal of Membrane Science (1996), 116(2), 161-169
CODEN: JMESDO; ISSN: 0376-7388
PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Microporous silica membranes are known to exhibit mol. sieving effects. However, sepn. of nearly equal sized mols. is difficult to carry out by size exclusion. Introducing sorption selectivity and keeping the kinetics favorable to facilitate a good contribution of permeation from sorption is a possible soln. to enhance selectivity of adsorbing mols. Results are presented on the synthesis of a microporous silica membrane with commendable permselectivity between helium and propylene. Modifications are performed on the membrane to improve its almost non-selective nature to propylene/propane mixts. to give practical sepn. values. Gas sepn. results on the modified membranes are presented. Surface selectivity on the newly added alumina surface layer is identified as the helping mechanism in realizing this sepn.

L3 ANSWER 57 OF 109 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1995:559071 CAPLUS
DOCUMENT NUMBER: 122:315142
TITLE: Membrane reactor/separator: a design for bimolecular reactant addition
AUTHOR(S): Tonkovich, A. L. Y.; Secker, R. B.; Reed, E. L.; Roberts, G. L.; Cox, J. L.
CORPORATE SOURCE: Chemical Technology Department, Pacific Northwest Laboratory, Richland, WA, 99352, USA
SOURCE: Separation Science and Technology (1995), 30(7-9), 1609-24
CODEN: SSTEDS; ISSN: 0149-6395
PUBLISHER: Dekker
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A membrane reactor is used to investigate the effect of selective reactant addn. on series-parallel reaction networks, such as the oxidative dehydrogenation of ethane to ethylene. Ethylene is favored in an oxygen-lean environment, while excess oxygen favors the formation of combustion products. Control of the reactant ratio (ethane to oxygen) is crucial to both the overall selectivity and the hydrocarbon conversion. One reactant is fed at the top of a catalyst bed packed within the membrane core. The other reactant permeates into the tube along the length of the reactor via an imposed pressure drop. The reactant ratio is large at the top, which leads to high selectivities; as the

oxygen is consumed, it is replenished via downstream permeation to improve the ethane conversion.

L3 ANSWER 58 OF 109 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1995:454714 CAPLUS
DOCUMENT NUMBER: 122:217253
TITLE: Strategies for multiphase reactor selection
AUTHOR(S): Krishna, R.; Sie, S. T.
CORPORATE SOURCE: Dep. Chem. Eng., Univ. Amsterdam, Amsterdam, 1018 WV, Neth.
SOURCE: Chemical Engineering Science (1994), 49(24A), 4029-65
CODEN: CESCAC; ISSN: 0009-2509
PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The central theme addressed is how to arrive at the "ideal" reactor configuration meeting most closely with the process requirements. The problem of reactor selection is analyzed at three strategy levels. Decisions are made at each strategy level using the reactor "wish" list. Combination of the individual decisions yields the final, ideal, reactor configuration. The three strategy levels are: catalyst" design strategy, injection and dispersion strategies, and choice of hydrodynamic flow regime. At catalyst" design strategy level the ideal catalyst particle size, shape, porous structure and distribution of active material are detd. For gas-liq. systems, the appropriate decision concerns the choice of gas-dispersed or liq.-dispersed systems, and the provision of the appropriate ratio between liq.-phase bulk vol. and vol. of liq.-phase diffusion layer. Reactant and energy injection strategy: injection strategies examd. include one-shot (batch), continuous, pulsed injection, reversed flow operation, and staged injection (in time or space), and the use of dispersionless contacting by keeping the reactants sepd. by a barrier (membrane). Choice of the optimum state of mixedness for concn. and temp.: the proper choice of state of mixedness can effect of selectivity and product properties. Sepn . of product or energy in situ: product removal in situ helps to increase conversion by driving the reaction to the right and preventing undesirable side reactions. Removal of energy in situ by using evapg. solvents as the function of a thermal flywheel. Contacting flow pattern: here there is a choice between co-, counter- and cross-current contacting of phases. Strategy level III: Choice of hydrodynamic flow regime. In the selection of hydrodynamic flow regime, the choice between the various "fluidization" regimes, e.g. dispersed bubbly flow, slug flow, churn-turbulent flow, dense-phase transport, dil.-phase transport, is made on the basis of the interphase mass transfer characteristics, heat transfer, mixing, etc. Combination of the decisions reached at the three strategy levels will yield the most suitable reactor configuration. It is argued that a

systematic approach to reactor selection may lead to novel and innovative reactor configurations with a potential edge over existing and conventional technologies.

L3 ANSWER 60 OF 109 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1995:229224 CAPLUS
DOCUMENT NUMBER: 122:10695
TITLE: Process for preparation of peptide or polysaccharide libraries.
INVENTOR(S): Schneider-Mergener, Jens
PATENT ASSIGNEE(S): Schering A.-G., Germany
SOURCE: PCT Int. Appl., 51 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9420521	A1	19940915	WO 1994-DE281	19940309
GN, ML, MR, NE, SN, TD, TG				
DE 4308410	A1	19940915	DE 1993-4308410	19930312
DE 4328332	A1	19950223	DE 1993-4328332	19930817
DE 4328637	A1	19950309	DE 1993-4328637	19930823
AU 9462815	A1	19940926	AU 1994-62815	19940309

PRIORITY APPLN. INFO.: DE 1993-4308410 19930312 DE 1993-4328332 19930817 DE 1993-4328637 19930823 WO 1994-DE281 19940309

AB Peptide (polysaccharide) libraries were prepd. by solid or liq. phase synthesis of selectable sequences of aminoacids (monosaccharides) on or in a substrate or reaction vessel contg. spatially sepd. reaction sites. Each reaction site has the correct no. of peptide (saccharide) coupling positions for reaction of activated amino acids (monosaccharides) (for solid phase synthesis) or a defined no. of start amino acids (monosaccharides) or peptides (polysaccharides) (liq. phase synthesis). The peptides (polysaccharides) consist of detd. or undetd. aminoacids (saccharides) at given positions in the sequence. When a detd. activated amino acid (monosaccharide) is used, it is used in excess; when an undetd. activated amino acid (monosaccharide) is used, it is part of a mixt. of amino acids (monosaccharides) which in total are used in .ltoreq. equimolar amt. Synthesis of the sequences comprises (a) adding the detd. aminoacid (monosaccharide) at a defined site on the substrate, and (b) adding to the substrate a mixt. of undetd. aminoacids (monosaccharides) equimolar with regard to the coupling sites. A procedure for multiple synthesis of tumor necrosis factor antagonists using FMOC-protected amino acids on a modified cellulose membrane is described.

L3 ANSWER 76 OF 109 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1992:492775 CAPLUS
DOCUMENT NUMBER: 117:92775
TITLE: Multifunctional reactors
AUTHOR(S): Westerterp, K. R.
CORPORATE SOURCE: Chem. Eng. Dep., Twente Univ., Enschede, 7500 AE, Neth.

SOURCE: Chemical Engineering Science (1992), 47(9-11), 2195-206
CODEN: CESCAC; ISSN: 0009-2509
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English
AB A review, with many refs., of reactor capacities, simultaneous reaction and heat transfer with simultaneous reaction and sepn. by mass transfer, membrane reactors, gas-solid-solid trickle flow reactors and reactor section with interstage product removal, and combination of reactions.

L3 ANSWER 81 OF 109 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1991:581498 CAPLUS
DOCUMENT NUMBER: 115:181498
TITLE: Multiphase membrane reactors for separating stereoisomers
AUTHOR(S): Lopez, Jorge L.; Wald, Stephen A.; Matson, Stephen L.; Quinn, John A.
CORPORATE SOURCE: Sepracor, Inc., Marborough, MA, 01752, USA
SOURCE: Annals of the New York Academy of Sciences (1990), 613(Enzyme Eng. 10), 155-66
CODEN: ANYAA9; ISSN: 0077-8923
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The operating principles and performance characteristics of hollow-fiber membrane bioreactors are illustrated for 2 enzyme-catalyzed hydrolyses of water-immiscible esters (Et butyrate and glycidyl butyrate); the kinetic resoln. of a racemic substrate is demonstrated in 1 of these reactions. Addnl., the effect that intramembrane diffusional resistance can exert on the effective enantioselectivity of membrane-immobilized enzymes is examd. from both theor. and exptl. perspectives.

L3 ANSWER 82 OF 109 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1991:141455 CAPLUS
DOCUMENT NUMBER: 114:141455
TITLE: Liquid-liquid extractive membrane reactors
AUTHOR(S): Lopez, Jorge L.; Matson, Stephen L.; Stanley, Thomas J.; Quinn, John A.
CORPORATE SOURCE: Sepracor Inc., Marlborough, MA, USA
SOURCE: Bioprocess Technology (1991), 11(Extr. Bioconvers.), 27-66
CODEN: BPTEEP; ISSN: 0888-7470
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English
AB A review with 51 refs., discussing a family of related liq.-liq. extractive membrane reactors of potential significance in a variety of bioprocessing operations. Each operation relies on the selective partitioning of a reactant or product from one liq. phase into a second immiscible phase. The discussion follows a progression from multilayer enzyme membrane reactors based on immobilized liq. membranes, through multiphase and extractive enzyme membrane reactors in which the membrane separates immiscible aq. and org. process

streams, and finally to membrane reactors mediating
the phase-transfer-catalyzed conversion of mutually insol. reactants.
Particular emphasis is given to the application of membrane reactors to the deacylation of benzylpenicillin and to the conduct of phase-transfer catalysis (PTC).

L3 ANSWER 83 OF 109 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1991:108180 CAPLUS
DOCUMENT NUMBER: 114:108180
TITLE: Novel solid multicomponent membranes and electrochemical reactor for oxidation reactions in waste gas treatment
INVENTOR(S): Cable, Thomas L.; Mazanec, Terry J.; Frye, John G., Jr.
PATENT ASSIGNEE(S): Standard Oil Co., USA
SOURCE: Eur. Pat. Appl., 24 pp.
CODEN: EPXXDW

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 399833	A1	19901128	EP 1990-305684	19900524
EP 399833	B1	19960501		
CA 2017243	AA	19901125	CA 1990-2017243	19900522
NO 9002254	A	19901126	NO 1990-2254	19900522
ZA 9003994	A	19920129	ZA 1990-3994	19900523
AU 9055962	A1	19901129	AU 1990-55962	19900524
CN 1048169	A	19910102	CN 1990-103232	19900524
CN 1028493	B	19950524		
EP 673675	A2	19950927	EP 1995-201914	19900524
EP 673675	A3	19951206		
AT 137421	E	19960515	AT 1990-305684	19900524
JP 03101833	A2	19910426	JP 1990-136905	19900525
JP 3212304	B2	20010925		
CN 1214276	A	19990421	CN 1997-121101	19971015
CN 1221812	A	19990707	CN 1998-123788	19981031
CN 1052268	B	20000510		
US 6287432	B1	20010911	US 1999-333168	19990614

PRIORITY APPLN. INFO.: US 1989-357317 A 19890525
US 1990-510296 A 19900416 US 1987-25511 A2 19870313
US 1989-457327 B2 19891227 US 1989-457340 B2 19891227
US 1989-457384 B2 19891227 EP 1990-305684 A3 19900524
US 1995-487945 A1 19950607 US 1996-615580 19960313

AB The solid membranes comprise a gas-impervious, multiphase mixt. of an elec. conductive material and an oxygen ion-conductive material and/or a mixed metal oxide of a perovskite structure. The reactor cells contg. these membranes may also contain a catalyst in the first of the 2 zones sepd. by the membrane. The reactors are useful for partial oxidn. of CH4 or C2H6, for extn. of O2 from oxidized gases, for ammoxidn. of CH4, etc. Flue and exhaust gases are treated by O2 extn.

L8 ANSWER 24 OF 29 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1977:449561 CAPLUS
DOCUMENT NUMBER: 87:49561

TITLE: "Detection of bile salts with Komarowsky's reagent and group specific dehydrogenases"

AUTHOR(S): *Macdonald, Ian A.*

CORPORATE SOURCE: Dep. Med., Dalhousie Univ., Halifax, Nova Scotia, Can.

SOURCE: **J. Chromatogr. (1977), 136(2), 348-52**
CODEN: JOCRAM

DOCUMENT TYPE: Journal
LANGUAGE: English

AB Rapid preliminary structural information about bile salts and sterols can be obtained by thin-layer chromatog. with CHCl3-MeOH-HOAc solvents of varying proportions and polarity, followed by reaction with Komarowsky's reagent (p-hydroxybenzaldehyde-H2SO4) as a spray reagent and then further reaction of the eluted spots with 3.alpha.- and 7.alpha.-hydroxysteroid dehydrogenase. After mobility and color of the reaction spot were detd. the colors were allowed to fade (1-2 days). The spots were scraped from the plate and eluted into cuvettes with MeOH or MeOH-Et2O. The solvents were dried and either enzyme, in a buffered mixt. contg. NAD, was added. Because the Komarowsky reagent is essentially nondestructive, the bile salts of appropriate structure were able to react with the enzyme and their presence was detected by the appearance of NADH, obsd. at 340 nm.